



## NOAA FISHERIES

Report large whales in  
distress to either:

1-(877) SOS-WHAlE  
(767-9425)  
24/7 hotline

Hail the United States Coast  
Guard on **VHF CH-16**

Ocean users play an important role in  
efforts to save whales in distress from  
pain, deformity, and death.

### Safety first!

Entangled whales are unpredictable  
and potentially dangerous for would-be  
rescuers and the animal. **Stay a  
minimum of 100 yards away.**

### Prompt Reporting

Prompt reporting of injured, entangled,  
and ship-struck whales is the best way  
to help the distressed animal.

### Stay with the animal

If you are able to safely do so, stay  
with the animal until trained help  
arrives.

### Trained Teams

California, Oregon, and Washington  
have a network of highly trained and  
experienced teams authorized (NMFS  
permit #932-1489) to respond to  
whales entangled in fishing gear and  
marine debris.

## Whale Entanglements off the U.S. West Coast Fact Sheet



### The concern

Entanglement of marine mammals, particularly large whales, in fishing gear  
and marine debris is a concern because of the potential impacts to marine  
mammals (individually and at a stock/population level), the fishing industry,  
and the environment.

Commercial fishery estimated average bycatch from 1990-1999<sup>1</sup>:

- World-wide: **307,753** cetaceans<sup>2</sup> per year
- United States: **3,029** cetaceans<sup>2</sup> per year (1% of global estimate)

### Reported large whale entanglements

- U.S. west coast (California/Oregon/Washington): an average of **11**  
large whales<sup>3</sup> reported as entangled per year from 2000-2012<sup>4</sup>
  - Actual number of entangled whales is unknown; reports are  
based on opportunistic sightings reported to the National  
Marine Fisheries Service (NMFS) and the disentanglement  
response networks; also from NMFS commercial fishery  
observers
  - Commercial fishermen have been actively engaged with NMFS  
on developing methods to reduce interactions with marine  
mammals along the west coast
  - Gray (*Eschrichtius robustus*) and humpback (*Megaptera  
novaeangliae*) were the most frequently reported entangled  
whale species

<sup>1</sup> Read A., P. Drinker, and S. Northridge. 2006. Bycatch of Marine Mammals in U.S. and Global Fisheries. Conservation Biology Volume 20, No. 1, 163-169

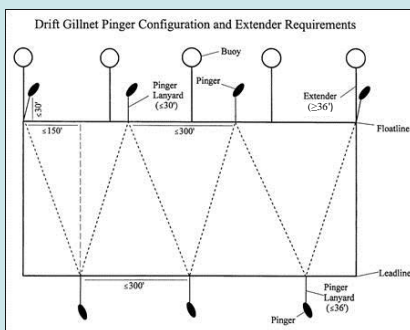
<sup>2</sup> Whales, dolphins, and porpoises

<sup>3</sup> West coast large whales include: blue, fin, gray, humpback, minke, north Pacific right, sei, and sperm whales; reported entangled whale species include: fin, gray, humpback, minke, and sperm

<sup>4</sup> NMFS whale entanglement databases: Southwest Region (California), Northwest Region (Oregon and Washington)

## Conservation case study: Gillnet modifications to reduce entanglements

- A Pacific Offshore Cetacean Take Reduction Team was formed in 1996 and led to requirements for the placement of acoustical pingers and deployment depths in the CA large mesh drift gillnet fishery targeting swordfish/thresher sharks
- Acoustic pingers produce sounds to warn animals of the presence of the net (required on all large mesh drift gillnet sets)



Required gear configuration on large mesh drift gillnets in California

### Results (1996-2009)<sup>7</sup>:

- Nearly 50% reduction in cetacean bycatch; and
- no observed beaked whale bycatch

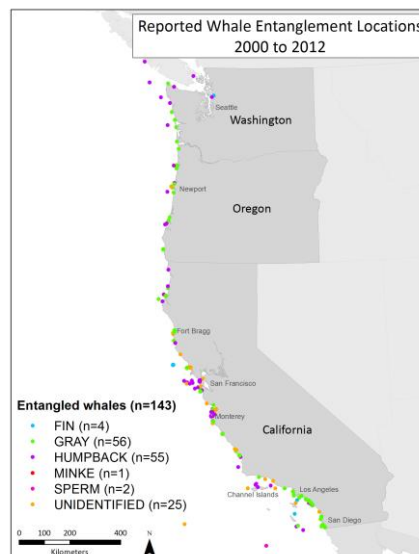
<sup>7</sup>Carretta, J.V. and J. Barlow. 2011. Long-term effectiveness, failure rates, and "dinner bell" properties of acoustic pingers in a gillnet fishery. *Marine Technology Society Journal* 45(5):7-19.

## Gear types

For many confirmed entanglement reports, an on-water response is not possible and a photograph or description of the entanglement is all that can be obtained. The origin of the entangling gear (active fishing gear or marine debris) is difficult to identify.

- From 2000-2012, the **majority of large whale entanglements reported off the U.S. west coast (46%) were identified as trap/pot gear**; 22% of reports indicated netting, and the source of the entangling gear was unidentified in 32% of reports
- A Fixed Gear Guide characterizing commercial fixed gear fisheries off California, Oregon, and Washington is available to assist responders and managers with identification of the entangling gear: [http://swr.nmfs.noaa.gov/psd/fixed\\_gear.htm](http://swr.nmfs.noaa.gov/psd/fixed_gear.htm).

## Reporting sources and disentangling response



**Figure 1. Whale entanglement locations from 2000 to 2012 (n=143). One dot represents a unique record, and does include re-sights.**

NMFS uses reports to track entanglements and provide the foundation for disentangling response, if possible. Reporting of entangled whales originates from a variety of sources (whale watch personnel, commercial and recreational fishermen, government personnel, private citizens, marine mammal stranding network members, NMFS commercial fisheries observers, and scientific researchers) with the majority coming from on-water observations. There are greater number of entanglements reported near larger cities such as San Francisco, Los Angeles and San Diego where boating activity is higher (see Figure 1). It is important to note that where the entangled whale is initially sighted may not necessarily reflect where the entanglement occurred.

From 2000 to 2012, a total of 124 free swimming or anchored entangled whales were reported. Entanglement response was initiated for 40% (n=49) of the entanglements that were reported, with the majority of responses ended with either full (33%, n=16) or partial (22%, n=11) disentangling.

## How you can help

- ✓ **Raise awareness** of marine mammal entanglements by sharing this document, the Fixed Gear Guide, brochures, videos, and on the web
- ✓ **Take photos** of the marine mammal (dorsal/back area, fins, fluke/tail, and head) and the entanglement (buoy(s), line(s), and netting)
- ✓ **Assess the situation** by documenting: mammal species, nature of distress, general condition of the whale, location (GPS), time of last sighting, approximate size, weather, animal speed and heading, and any identifying markings on gear
- ✓ **Report** entangled whales to the **SOS-WHAlE** hotline (1-877-767-9425), and report entangled or stranded dolphins, seals, sea lions, or sea turtles to your local stranding network member. Information can be found at: <http://www.nmfs.noaa.gov/pr/health/networks.htm>
- ✓ **Stay with the animal** (at a safe distance of 100 yards minimum) until trained help arrives and be prepared to share information with responders